# THE VETERINARY RECORD

A Weekly Journal for the Profession.

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### Good News.

Mr. Kearley, M.P., has given notice of a reduction, in supply, of the vote of the Board of Agriculture in order to enable him to call attention to the change of policy in the Veterinary Department in failing to appoint a veterinarian to the vacant post of Director; in reducing the number of the scientific officers in the department and in renaming it the Animal's Division. This is good news indeed, and every practitioner should at once send in to the Secretary at Red Lion Square the names of other Members of Parliament who are willing to assist in redressing the wrong so unnecessarily inflicted.

### What the "Animals" Division has done.

Since "public interests" required the abolition of the Veterinary Department at the Board of Agriculture and the formatiom of an "Animals Division," sufficient time has elapsed to afford material for estimating the success of the change.

The old Veterinary Department during its twenty odd years of service stamped out Cattle-plague, Pleuro-pneumonia, and Foot and Mouth Disease. What this victorious attack on disease saved the stock-owner and the nation can only be valued in millions sterling. It was done by veterinarians under the direction of veterinarians.

The new Animals Division permitted the re-introduction of Foot and Mouth disease in three separate outbreaks, but thanks to the early and correct diagnosis of local veterinary surgeons it did not spread. The other work of the division has consisted entirely of an attempt to suppress Swine-fever. With what result? The expenditure of £100,000 of public money, and an increase in the deaths of swine from disease!!

From *The Times* of Tuesday last the following figures are taken:—

Swine-Fever.

| | | *Deaths* | *Slaughtered as exposed to infection* |
|---|---|---|---|
| 1895 | Twenty weeks ending May 18th | 3285 | 16,559 |
| 1894 | Twenty weeks | 3092 | 25,326 |
| 1892<br>1893<br>1894 | Averages for like period | 2447 | |

Upon this *The Times* comment is "It will be noted that the slaughterings have diminished by over 34 per cent. whilst the deaths have increased 6 per cent. on last years figures." To the casual reader the impression might be given that some credit was due for the "decrease" and that the "increase" was of small importance. The reason of the increase is that the present regulations are useless. The reason of the decrease is simply that the Board have departed from the plan of thoroughly stamping out an outbreak, and instead of slaughtering leave infected swine to recover, die or spread disease.

Surely it is time some Parliamentary enquiry was made into this calamitous failure. The increase of disease is worse than when Local Authorities were left to combat the plague at their own expense and with only very partial powers to enforce their action.

In Thursday's *Times* we find a paragraph which suggests that some action will be instituted. It is to the effect that Mr. Chaplin will ask Mr. Gardner if it is the case that the deaths from swine fever in 1895 exceed the deaths in the corresponding period of 1894. There can be but one answer, and the natural corollary is, a committee of enquiry—not a departmental committee, if justice is to be done, but a Parliamentary committee.

### Sheldon on "Pleuro."

When a man undertakes to write the dairy column of an Agricultural paper he should at least possess some sound elementary knowledge of the more important contagious diseases of animals. His special information should, of course, be about butter and milk. If he understands these two things he is a trustworthy authority and in his own department may be useful. Unfortunately the popular writer too often poses as omniscient and his casual references to subjects about which he really knows nothing disclose the most alarming ignorance.

Readers of Agricultural papers are especially a class which should not be taught error as to the spread of contagious diseases. What are we to think of this—"The Dutch indeed are a slow and cautious people, well up in the art of putting things, and, knowing how easily *they might send us foot-and-mouth disease or pleuro in their milk*, which we should then prohibit, they prefer to send us as much as they can of it in margarine." The italics are ours. The quotation is from *The Agricultural Gazette* and the writer is Mr. J. P. Sheldon.

### The Annual Meeting.

During the last year or two the annual meeting has been pretty fully attended. Perhaps there is not any very grave negligence committed by the practitioner who seldom puts in an appearance. The meeting has little work to do. It meets to hear the result of the year's work by the Council and to hear the result of the voting for Members of Council. All this information is available without coming to London. Still the meeting is worth attending. Those who come show an interest in the profession and each visit increases that interest. Old friends meet and renew almost forgotten acquaintanceships with men settled in distant parts of the country. A day spent at the annual meeting is not lost, and by staying to the annual dinner may be made a pleasant outing. To attend the meeting and dinner is a direct compliment to the Council, and every member who acknowledges the work done by his representatives can offer no more graceful acknowledgment than to come to London on June 5th, criticise the report kindly, and stay to dine at the Holborn Restaurant.

## CASES AND ARTICLES.

### PROPRIETARY REMEDIES IN VETERINARY PRACTICE.

By E. Wallis Hoare, F.R.C.V.S., Cork.

In the present scientific age, it would naturally be imagined that every remedy or medicinal agent employed in the treatment of disease, should have its precise action perfectly familiar to the prescriber.

He should be aware of the indications for the selection of the special medicinal agent, and should possess a clear perception of the manner in which therapeutic results are to be brought about.

This being the case, it is apparent that the scientific practitioner will not prescribe any agents or combinations of agents, the composition and actions of which are unknown to him.

It is not necessary, however, that he should be acquainted with the exact chemical preparation of the medicinal agent, or of its convenient form, and combinations. For example, take that useful and convenient prepartion known as chlorodyne; we are aware that it contains a certain proportion of morphine to the ounce, also of spirits of chloroform, and any other carminative that we may desire to add.

This we would not class as a proprietary medicine, because we are aware of its contents, although various wholesale chemists may claim special virtues for their preparations of the compound. Again take that excellent antiseptic known as creolin, we are aware of its derivation, although we are not acquainted with the chemical processes necessary to prepare it; but from practical experience in its use we know its value as an antiseptic both internally and externally, and its superiority to the time honoured carbolic acid.

But there are remedies advertised with long sounding titles, concerning which we are utterly ignorant of the composition or of the physiological actions, and it is with feelings of surprise that we note testimonials from practitioners in favour of the medicinal virtues of these preparations.

Still greater should be our surprise to find that *patent* preparations publicly advertised contain testimonials from qualified veterinary surgeons.

It was only lately that I saw some of these testimonials in a pamphlet issued by a certain firm, while in the same production was to be found in many places, illustrations of cases in which one and two "vets" failed to cure, but the preparations advertised brought about a complete recovery. Surely it is high time that practitioners should cease to employ or recommend patent remedies.

The pharmacopæia contains sufficient medicinal agents to select from, without descending to adopt the nostrums of veterinary chemists.

But it certainly appears strange that the professional journals should contain advertisements of these empirical compounds, and we read at present an advertisement of a celebrated French "Red Ointment" which is "the only known substitute for the hot iron," also of a "Black Mixture" which is a "*specific for broken-kneed horses*"; and other abominable announcements of a similar nature, finishing up with the insulting sentence "customary allowances to veterinary surgeons."

Such advertisements should not be inserted in journals which claim to represent scientific veterinary medicine and surgery, and it is only to be hoped that these have got no lay readers.

We all know to our cost the enormous amount of injury done to practitioners by the employment of patent preparations. There is an innate desire in the minds of all horse and stock-owners for patent embrocations, red drenches, mange cures, etc., and they will allow these empirical agents a far longer time to produce effects than they will permit professional attendance; and as for expense, this is no object so long as the preparation has a high-flowing name, a good colour, and a characteristic odour.

In country districts especially, the amount of patent cure-alls sold is enormous, and it frequently happens that these are freely tried before professional assistance is sought.

Then we have dispensing chemists advertising and selling all forms of veterinary medicines, thus taking away the legitimate profits of the practitioner.

Professional fees in a country district exclusive of medicines, are not by any means proportionate to the work done and expected, hence it behoves us to protect our interests by supplying our own medicines and endeavouring to convert the tastes of our clients from patent preparations.

No doubt it is sometimes refreshing to be told that we prescribe far too much medicine, and that we should depend more on hygiene, etc., in practice, this fact we must admit in many instances, but we fear that the millenium of professional progress must be reached before we can impress the correctness of this theory sufficiently on the owners and attendants of animals.

### VOTING PAPER FOR THE ELECTION OF NINE MEMBERS OF COUNCIL.

By C. Cunningham, M.R.C.V.S., Slateford.

The filling-in of this paper a few days ago was to me—as I daresay to many others—a queer and curious experience. There were presented the names of a dozen candidates for Council honours, with only one of whom I was personally and well acquainted, and having, I am sorry to say, really no wish nor desire to be represented on Council by this gentleman I felt compelled, yet with much regret, to draw the pen through his name. Looking again into the list, I could easily pick out five others who, so far as I was able to judge, would prove very able and excellent Councilmen. The present much esteemed and valued head of the profession, two ex-professors, one of them an ex-examiner (the best man I used to think, or at least, among the best men on the Board, now thrown overboard) — the recently appointed Principal—the successor in a direct line of Professors Dick, Barlow, and Walley—a highly successful local practitioner, a member of one of the most important

municipal bodies in the Kingdom. These gentlemen appeared to me, as a voter, most eligible and suitable candidates, and I had very great pleasure indeed in leaving their names untouched.

Having thus disposed of six names, the question arose what was to be done with the others. I really had no personal knowledge of these gentlemen, had little, if any, information as to their political views or opinions, the presence of their names and of those of their proposers was enough to convince me that all were worthy of the suffrages of the electors; that each and all of them would prove very able and useful members of Council, and with all the pleasure in the world I would have erased none of the names, but have given my vote for their return to represent the local veterinary surgeons of the country—the profession needs a little more local representation. But the voting paper told me that only nine men were wanted, having left in five names I must perforce erase two out of the six remaining, and how was I to do it? I was sorely puzzled. At length with a simple adjuration to be guided aright, I shut my eyes and pointed the pen, and to my surprise it had struck a name (I forget which) which was doomed to be erased. Scanning the list again, I noticed that one of the candidates hailed from a hilly and picturesque part of the country with which, at one time, I was slightly acquainted, and it seemed right and just to me that that remote and beautiful part of the country should have a representative. Then I remembered that three Veterinary Medical Societies had recommended the election of three candidates, and I voted for another of their nominees. I had taken two of them I could not be expected to vote for the third, someone else must have a chance. I was getting on. I had got eight prospective Councilmen selected, I only required another but the selection was difficult. I looked at the names, the places, and the purposes, again and again, but it was of no use, the one seemed as good as the other. I had no ways nor means of coming to a right conclusion, and in sheer desperation I drew the pen through three of the remaining names, leaving in my confusion and irritation only eight instead of nine names unerased. I sealed up and posted the voting paper feeling that I had done a most unfair and ungentlemanly and almost iniquitous thing, and perhaps I may be allowed to tender my apologies and regrets to some of the candidates through whose names I so reluctantly drew the pen, as possibly they might be the best men on the list.

My experience in the filling-up of this voting paper is, I make bold to say, the experience of two-thirds of the profession. For one man who knows all the candidates and their qualifications thoroughly and well, there are a hundred who know the big majority only partially and imperfectly, and some to whom they are utter strangers. Year in and year out we are asked to vote for or reject men of whom, and of whose opinions, we know little or nothing. We must vote in this way or not vote at all. There is surely "something rotten in this state of Denmark."

About ten days ago, a friend in the editorial line from the neighbouring city—whose writings appear occasionally and indirectly in the veterinary professional periodicals—called. He wished to attend a meeting of the prospective parliamentary representative of this county—the probable successor, I am given to understand, of Mr. Gladstone—with the electors of this district. He wished to ask some questions in the agricultural interest, such as the "Holdings Act," "Shorter hours for farm servants"; also, I was glad to hear, he wished to elicit the candidates views as to tuberculosis, and the treatment of local practitioners by the Board of Agriculture, etc. We went to the meeting and found it literally packed with all sorts and sizes of men, good and indifferent. Working men of the better and worst class, middle-class most respectable people; lawyers, reverend gentlemen, artists, and even ladies were represented. The candidate got up and drawing himself to his full height and embracing his posterior lumbar region with the palms of his hands and sticking his elbows out he proceeded with his address in slow and measured accents—as they do, we presume, in Parliament and Council, taking half-an-hour to say what might be explained in five minutes. Not a learned erudite address, nor a deep political plunge, but a plain popular exposition of the candidate's views, listened to all through with interest, and occasional applause or expressions of dissent. At the close the Chairman, as usual, invited questions, and was'nt there a fire off. First a working man jumped up terribly in earnest about taxes, rents, house, food, and sanitation; then a would-be eloquent catachiser with a string of questions, some of them grand and difficult of solution—a bit of a spouter who got rather out of his depth; then a short interesting list of questions from a very intelligent elector, and the district minister eliciting very valuable information and pertinent expressions of opinion. All this in a common country village. Everyone taking the deepest interest in the views and opinions of the two candidates seeking to represent the county of Midlothian in Parliament, and when the day of election comes every voter knows what he is doing, he has had every opportunity of judging, and if he votes for the wrong man it is his own fault.

Now attuning small things to great, is there nothing here which the veterinary profession might, with advantage to itself, copy? Supposing that, from a professional point of view, the three kingdoms were divided into electoral districts before one or other of which every candidate for Council honours must appear. Would such a system not do good? We are told in *The Record* of Saturday that we are falling back into the "slough of apathy." Would a modified form of Parliamentary election not prove a useful and necessary reviving agent?

Supposing some years ago twelve candidates for Council honours had gone down to solicit the suffrages of the electors in some constituencies vacant by rotation in various parts of the country, and told the local veterinary surgeons whose votes he desired that it was proposed to drive all Members out of the Council, to deprive them of the rights which, one and all had all along enjoyed, and to fill the Council-room with men chosen out of a couple of hundred Fellows? Does any suppose that the "Ninth

Clause" would have gone so long unchecked? or supposing that these candidates had told the local practitioners whom they were addressing, that it was proposed to submit shoeing-smiths to a short and simple examining test and give them a nice high-flown certificate or diploma signed in full by some of the best names in the profession, and enabling these shoeing-smiths to put the fine title R.S.S. behind their names. Does any one think that local veterinary practitioners as a body would have voted for men who held such views? Or coming to our present position, supposing these candidates stated fully and freely that they approved of this extremely high-standing education and lengthened curriculum and increased scale of fees, which renders it very difficult for a veterinary surgeon in ordinary circumstances, and with only moderate means, to send his son or ward to college with a reasonable chance of gaining admission or completing his course and gaining his diploma. Do such candidates think that they would meet with general favour or support? The rank and file of our profession, whose votes after all fill the Council, are as a rule slow to complain, very unwilling to give expression to their views in public, but let the candidates for Council honours who approve of the Ninth Clause, who go in for the decoration of farriers, who approve of trying to keep the working sons of veterinary surgeons and blacksmiths out of the profession, and open its gates to young men of better means and education but with no practical knowledge of animals or of the every-day work of the profession which they desire to enter; let such candidates call personally on local veterinary surgeons or address them at small district gatherings, and, very possibly, they would hear expressions of opinion, and be submitted to such a heckling as would render them wiser and better men. At this busy time of the year too, veterinary surgeons, as a rule, cannot leave their practices and rush to London to attend the Annual General Meeting, at which this election takes place, and yet it is but reasonable to wish that every aspiring councilman should address the constituency, either personally or by a printed form, and how seldom is this done?

Some years ago, convinced of the injustice and unfairness of the present system of election of the R.C.V.S., and the great and unnecessary expense and labour connected with it, I proposed—or rather to put the matter more correctly—I had the audacity and presumption to propose—that a modified form of our Parliamentary System of Election might prove more beneficial and arouse greater general interest and conduce to economy. I took the slight trouble to divide the counties of England, Scotland and Ireland into 30 or so constituencies, several counties in each. Giving the men in each constituency or electoral district the power among themselves to send a special and direct representative to Council, leaving them free to choose that representative from any quarter or from any class or condition of men, provided only that representative was a duly qualified veterinary surgeon. Giving power also to every Veterinary Medical Society, and Veterinary College—The Army, or any other body with sufficient interest at stake to interest itself in the return of its own special representative. The proposal was received with some little favour, much misrepresentation, and studied indifference if not contempt. It was dubbed "Representation by Counties." "Territorial Representation." A Council to which local practitioners would send only some of their own number and of their own kidney. Men only remarkable for short-sightedness and bigotry, the scheme was the production of a practitioner not worth the name; and in last month's Journal the Editor stated that he did not approve of this system of "Territorial Representation as the schools were already sufficiently represented." In this gentleman's view, we have long known "the Schools" are almost everything and the local veterinary surgeons who have so long supported him count for little, but one may claim the right to differ from even such high authority. The Scottish and other Schools are well and fully represented. It is surely time that Scottish and Irish and English veterinary surgeons had their turn.

Parliamentary Representation is making its way everywhere. In the House of Commons and Municipal Affairs it has long held sway. In County Council Elections, in Parish Councils it is now adopted. In School Board Elections the cumulative vote has been found productive of great harm and injustice, and will probably be discarded. "One man one vote." Every district and every individual voter his own special and direct Representative in Parliament and Council-room is the order of the day all over the country. Perhaps within the next 30 or 50 years the Royal College of Veterinary Surgeons will awake to its own interest and advantage and adopt it.

27*th May*, 1895.

## DISTRIBUTION OF THE FOREST FLY.

Mr. Evans' article has drawn two correspondents in *The Field*. The Rev. E. R. Banks writes "it is common in the heath district round Wareham in S.E. Dorset." "P" says "the forest fly is very prevalent at Beddgelert, Carnarvonshire, where it is locally known as "Plean Beddgelert."

Perhaps some of our readers may be able to add to the facts now being collected.

## A CORRECTION.

Mr. Goodall writes to point out that the drawings he supplied of the tarsus of forest fly and sheep tick were misplaced last week.

We therefore reproduce them as they ought to have appeared.

Tarsus of Forest Fly.

Tarsus of Sheep Tick.

# Royal College of Veterinary Surgeons.

## THE EXAMINATIONS IN SCOTLAND.

The Written Examinations were held in Edinburgh and Glasgow simultaneously with those held in London on Monday, May 13th. 190 candidates were present in Edinburgh, and 65 were present in Glasgow.

The Oral and Practical portions of the examinations were held in Edinburgh and in Glasgow on and between Monday, May 20th, and Saturday, May 25th.

In class C or Final examination, 79 candidates presented themselves in Edinburgh, and of those 36 passed; while in Glasgow 18 presented themselves and 10 passed. With the exception of one gentleman who was not of age, all those who passed were admitted members of the Royal College of Veterinary Surgeons.

### Glasgow College.

Mr. R. Armstrong
J. Dick
R. Griffin
A. Main
W. McConnell
Mr. W. McMurray
W. Roy
R. K. Rutherford
A. P. Stewart
A. Spreull

### Dick College.

Mr. T. Boucher-Hayes
H. H. Carlisle
D. Cumming
A. G. Elder
H. Featherstonhaugh
W. H. Harvey
P. J. Howard
W. Ison
S. S. Johnstone
A. Marston
J. J. Neeson
Mr. E. C. Norgate
W. H. Pickering
F. G. Relf
J. D. Richardson
K. Roberts
A. R. Routledge
E. C. Russell
J. Scott
W. D. Wallis
W. S. Worthington

### New College.

Mr. J. Buck
F. B. Byrne
T. C. Dick
F. Douthwaite
B. A. Fowler
J. A. McGowan
J. E. Mills
A. S. Milne
Mr. F. W. Morris
J. Mulqueen
F. Pickering
T. O. Richardson
R. C. Robinson
F. H. Shore
* J. Spreull

In class B or Second examination, 69 candidates presented themselves in Edinburgh and 30 passed, and in Glasgow 25 presented themselves and 13 passed.

### Glasgow College.

Mr. R. G. Anderson
* G. Broom
J. Donaldson
H. Ferrier
J. B. Gates
J. Marshall
J. R. McCall
Mr. F. McEachran
T. G. Palgrave
T. Rennie
F. Russell
J. A. Todd
A. Worley

### Dick College.

†Mr. J. Brownless
W. Cathcart
F. Fail
S. S. Foster
R. W. Hadfield
W. W. Hirst
N. Howe
† J. R. Jackson
† H. Lomas
F. McGee
† Mr. T. Morland
W. Murgatroyd
* W. Stableforth
J. C. Stevens
J. F. Talbot
H. Tasker
H. O. Thomson
* W. J. Watt
W. Young
J. Younghusband

### New College.

Mr. J. A. Connell
J. B. Collyer
A. W. Findlay
F. C. Fountain
W. L. Jones
* Mr. F. G. Liddle
A. M. Munro
A. M. Porteous
W. Savage
* H. Webb

In class A or First examination, 53 candidates presented themselves in Edinburgh and 31 passed, and in Glasgow 23 presented themselves and 14 passed.

### Glasgow College.

*Mr. R. G. Jones
J. Keir
T. Kilpatrick
W. W. Lang
* C. W. Mackay
J. McLeod
A. K. Murray
† Mr. H. Oliver
J. T. Shannon
R. Spittall
J. H. Steede
J. Stevenson
* F. Timing
D. Weir

### Dick College.

Mr. G. W. Bloxome
E. Brown
T. H. Brown
A. C. Burton
D. R. Chalmers
E. Evans
G. Galt
R. Garraway
R. Garrett
† A. Gibson
C. P. Hynes
Mr. J. Maguire
P. Mahar
C. F. Parsons
H. Percy
J. W. Pollock
C. A. Reid
N. Roberts
H. Ryan
J. Seton
W. Tart
S. A. Winkup

### New College.

Mr. J. W. Bee
J. Bradley
G. E. Hamilton
G. A. Harrison
Mr. E. Marrison
J. Paul
G. J. Roberts
Syd. Robson

F. R. Shippard.

Marked thus * passed with Second Class Honours.

" " † " " First " "

R. Rutherford, F.R.C.V.S.
*Secretary to the Board of Examiners,*

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### Erratum.

In the list of passes at the examination in London, (p. 637), Class B for W. M. Perry, read W. M. Power.

## VETERINARY SOCIETIES.

### LANCASHIRE VETERINARY MEDICAL ASSOCIATION.

Quarterly meeting of the Lancashire Veterinary Medical Association was held at the Grand Hotel, Manchester, on Thursday, April 25th, 1895. Tea 5 p.m. Business 7 p.m. Present: The President (Wm. Dacre, Esq.) in the chair. There were also present Messrs. J. B. Wolstenholme, W. Ackroyd, H. Hall, J. H. Carter, W. A. Taylor, A. Munro, T. Hopkin, Wm. Woods, E. H. Stent, H. B. Allen, F. B. Pearson, E. E. Wood, R. C. Moore, F. W. Hall and Geo. Howe.

NEW MEMBERS.

Mr. HOPKIN proposed, and Mr. Carter seconded that the minutes of the last meeting be taken as read. This proposition was carried unanimously.

The SECRETARY read various letters respecting the action of the Board of Agriculture.

Mr. HOPKIN proposed, Mr. W. A. Taylor seconded, and it was carried unanimously that Mr. Roberts C. Moore, M.R.C.V.S., Manchester, be elected a member of the Association.

Mr. HOPKIN nominated Mr. King, M.R.C.V.S., of Manchester, for membership. Mr. Wolstenholme seconded.

ELECTION OF COUNCIL R.C.V.S.

The SECRETARY read a letter from R.C.V.S.

The PRESIDENT said he had received a letter from the Secretary of the Eastern Counties V.M.A., Mr. Shipley, *re* the selection of a candidate for the Council and asking for the support of Lancashire V.M.A. and said he thought there could be no doubt from a letter he had received from Mr. E. Faulkner on the same subject that the Lancashire V.M.A. were under a certain amount of obligation to the Eastern Counties Association, and that the former could not do better than reciprocate in the matter if they had a chance of doing so. He left the question with the members to say what they might think proper and awaited any suggestions as to names and so forth.

Mr. W. A. TAYLOR proposed that Mr. Samuel Locke be asked to become a candidate, and in the event of obtaining his permission that the office bearers with other gentlemen whom the President may select shall be appointed to further his candidature and endeavour by all means in their power to secure his election, he had no doubt that the members of the Society would acquiesce in the desire of the Eastern Counties Association to assist them in their endeavours to elect Mr. Bower as member of Council R.C.V.S. It would be a matter for the Committee to decide as to whether a joint circular should be issued.

Mr. CARTER seconded Mr. W. A. Taylor's proposition that Mr. Locke be approached with regard to his candidature for the Council R.C.V.S.

Mr. DACRE referred to the great loss the Society had sustained in the death of Mr. Thomas Greaves, and paid tribute to the untiring interest and life long devotion of Mr. Greaves in the foundation and development of Veterinary Medical Associations, and to every object which went for the improvement and advancement of the profession. He moved that a letter of condolence be sent to the representatives of the deceased gentleman.

This was seconded by Mr. J. H. Carter and carried unanimously.

The PRESIDENT (Mr. Dacre) then introduce the subject of fracture of the pastern in horses, he related a number of cases and exhibited a variety of interesting specimens, which was followed by discussion.

Mr. J. H. CARTER, of Burnley, then brought before the members several subjects of deep interest to the profession, and also exhibited and gave the history of several specimens taken from cases which had come under his observation.

The SECRETARY stated he had letters apologising for non-attendance from Professor Williams, Professor Penberthy, Messrs. Peter Taylor, R. C. Edwards, R. Hughes, E. Faulkner, Owen Williams, J. McKinna, and Prof. Owen Williams.

Mr. WOLSTENHOLME exhibited two tuberculous kidneys —cow: Sections of skin from a case of malignant pustule —man: Sections of skin and lymphatic gland showing the bacilli of leprosy—man: Various sections showing tubercle bacilli—horses: Bacilli of tetanus—cultivations: Various sections showing the bacilli of anthrax.

The SECRETARY proposed a vote of thanks to Mr. Carter for his communication on clinical cases.—Mr. MUNRO seconded.

Mr. HALL proposed a vote of thanks to the President for presiding.—Mr. WOLSTENHOLME seconded.

## EXTRACTS AND NOTES.

### NEW VETERINARY COLLEGE, EDINBURGH.

The twenty-sixth session of the New Veterinary College, Edinburgh, terminated on Thursday, when the presentation of medals and certificates took place before a large gathering of students and their friends. Principal Williams before making the presentations, said that, so far as appearances went, they had had a successful session. He thought he was justified in predicting that there would be at least a moderate if not a grand show at the examination. Matters were now much fairer than before, because written examinations were taken into consideration. There were many men who wrote a good paper and stood very badly an oral examination. One remarkable fact was that amongst them during the year, attending all the classes, they had had a lady. He paid a high compliment to her ability, and said there was nothing in the Charter of the Royal College to have prevented her going up for examination. As it was, he had pleasure in presenting her with a medal. As to the question of amalgamation of the two Colleges, he never moved in the matter. It was brought before him, first of all, through the public press, and secondly, by members of Town Council, almost every one of whom desired that the Colleges should be amalgamated. He had no interest but the interest of the profession to serve; nor had he said one single word to any Town Councillor on the subject, but they all spoke to him. Principal Williams then handed over the prizes. The principle winners were:—

The Principal's £20 medal—T. C. Dick. Horse Pathology—medal, James M'Phail. Cattle Pathology—medal, J. Spence. Materia Medica—medal, T. C. Dick. Anatomy—medal, J. B. Collyer. Physiology—medal, W. L. Jones. Junior Anatomy—College medal, Miss Corstorphine; Highland and Agricultural Society's medal, G. J. Roberts. Physics—John Paul. Histology—medal, W. L. Jones. Chemistry—medal, G. J. Roberts. Botany—medal, J. Paul. Demonstration of Morbid Anatomy—T. O. Richardson and James M'Phail. Curator of Museum—medals, R. C. Robinson and R. C. Cochrane. Practice—medals, F. B. Byrne and R. J. Murnane. Edinburgh Veterinary Society's President's special medal—James Spreull. On the motion of Mr. T. M. Horsburgh, S.S.C., a vote of thanks was afterwards awarded to Principal Williams for presiding.—*North British Agriculturist.*

## TUBERCULOUS INFECTION THROUGH THE ALIMENTARY CANAL.

By SHERIDAN DELEPINE,
Professor of Pathology, Owens College.

When a truth, whether scientific or other, goes against the interests of a large and powerful class of the community, it is generally ignored or resisted till a more powerful class enforces its recognition. For the last 30 years farmers and butchers have been roughly disturbed by mere scientist, medical observers, and veterinary surgeons, who have come to the conclusion that is is not safe for man or beast to feed on tuberculous products.

At first the observations of Villemin, Chauveau, Gerlach, Günther and Harms, Toussaint, Peuch, Bollinger, Jöhne, etc., though conclusive enough, were not accepted as quite convincing by a number of authorities, because there was no easy criterion by which tuberculous lesions could be recognised.

Even after Koch's demonstration of the presence of a tubercle bacillus, not only in human tuberculous lesions, but also in those of the lower animals, many who considered themselves experts tried to evade the logical consequences of this discovery.

At the present time opinions are still divided, and thereby the w ork of the Medical Officer of Health is rendered so difficult that he may at times be hindered from serving the public interests which he has to protect.

The evidence which has been adduced to prove that the flesh of tuberculous animals was not capable of causing tuberculosis, though very interesting, cannot shake in the least the observations on which the opposite view is based. It is with the object of showing the bearings of the arguments brought forward by both sides that I will now attempt to give a short account of the present state of this question.

It will be taken for granted that the infectiousness of tuberculosis has been fully demonstrated by the work of Villemin, of Koch, and of their followers. Tuberculosis of the lower animals is due to the same micro organism as in man, and it can be communicated from man to the lower animals and from the lower animals to man.

This statement is not affected by the fact that there are certain differences in the morphology of the bacillus and in the character and mode of extension of the lesions in the two cases.

We need not either discuss the question of heredity as a causal factor in tuberculosis. It can be safely admitted than an exceedingly small number of children are affected at birth, and the same may equally truly be said of the young of the lower animals. The few cases of fatal tuberculosis recorded by Hiller, Shleuss and Grothaus, Jöhne, Landouzy and Martin, etc., though they show that it is possible for a fœtus to be infected in utero, are of little importance when compared with the statistics given by Boltz, for instance, in his "Inaugural Dissertation." Out of 2,576 children whose bodies were submitted to a post-mortem examination in Kiel, between 1873 and 1889, there were 424 cases of tuberculosis, or 16·4 per cent.

Woodhead has given on a smaller scale results, equally significant, of 127 cases of tuberculosis:—

Such statistics, and others not mentioned here, indicate clearly that tuberculosis usually begins after birth, and that it is a rare disease in the early months of life. There is ample evidence to prove that among the channels of infection the air passages are most important; a large number of children must, however, become infected through their alimentary canal.

In a series of over 100 experiments made by myself, I have found that tuberculosis of the mesenteric glands occurs very late, if at all, in guinea pigs infected through other channels than the alimentary canal or the peritoneal cavity, and when the mesenteric glands are affected in such cases all the other organs are in a state of advanced tuberculosis, but where the seat of inoculation is in the abdominal cavity, the mesenteric glands are, on the contrary, the first organs affected. In fact, it is generally possible, by carefully dissecting out the lymphatic ganglia, to find the part through which the animal has been infected.

To give only a practical instance of the results obtained, it will be enough to mention here that I have found a single prick of the tongue, of the lips, or of the fauces with a needle loaded with tubercle bacilli to be followed by marked tuberculosis of the cervical ganglia, the lesions in such a case resembling closely those observed in the neck of scrofulous children.

In presence of such observations, it is only right to assume that when the mesenteric glands are the only organs affected with tuberculosis, or when they are much more affected than other organs, the channel of infection must have been the alimentary canal.

Judging from the statistics recorded above, it is evident that this occurrence is far from unfrequent in children. In corroboration of this fact we have seen that children begin to be liable to tuberculosis after they had reached the age of six months (*i.e.* after most of them have begun to feed on cow's milk, or foods other than the maternal milk).

There is, however, more than circumstantial evidence to show the danger of tuberculous food. Chauveau, Gerlach, Harmz and Günthar, Jöhne, Nocard, Peuch, Viseur, etc., etc., have shown that tuberculous organs and flesh when given to various kinds of animals were capable of causing tuberculosis beginning in the abdomen. Gerlach, Klebs, Jöhne, Bollinger, Baumgarten, Peuch, Bang, etc., have proved the existence of the same danger in connection with the milk from tuberculous cows.

Nocard has pointed out that when cats are fed with muscle free from tuberculous glands, and not accidentally contaminated with tuberculous products coming from other organs, tuberculosis is never obtained. This is true even when young kittens are used, though these animals are easily rendered tuberculous by the ingestion of small quantities of tuberculous lungs, liver, and lymphatic ganglia.

In support of Nocard's contentions, we have the experiments of Peuch, Galtier, and Perroncito, showing that muscular tissue taken from tuberculous animals, but free from tubercular lesions, is practically incapable of producing tuberculosis by ingestion.

There is no doubt as to the danger of eating tuberculous food, but there is a divergence of opinion among authorities as to the parts of an animal which are infectious.

Various attempts have been made to prove that though this is not always true, the blood can, at times, contain enough tubercle bacilli to render any part of the body infectious. This, however, has been shown by Bang, Nocard, and McFadyean to be an extremely rare occurrence.

The only thing which has been clearly proved is that whenever an organ shows distinct tuberculous lesions, this organ is capable of transmitting tuberculosis by inoculation or ingestion.

It is, therefore, interesting to find what is the prevalence of tuberculosis in the various organs of bovidæ, which of all the animals used for food, are most liable to tuberculosis. According to Nocard the organs of oxen and cows are affected in the following order of frequency: Lungs and pleura, 40 per cent; lungs alone, 20 to 25 per cent; pleura and peritoneum alone, 15 to 20 per cent;

lymphatic glands, genital organs, mammæ, bones, articulations, 15 to 25 per cent.

Nocard insists upon the fact that it is not very unusual to find lymphatic ganglia affected without there being any trace of tuberculosis in the viscera through which, he assumes, the tubercle bacilli have penetrated into the organism. This is not only true of the thoracic and abdominal ganglia, but also of those which are outside the cavities, notably the cervical and pharyngeal ganglia.

A slight knowledge of the distribution of lymphatic ganglia in the body will make it evident that there is hardly any joint of meat, as cut by the butcher, which does not contain one or more lymphatic glands. These ganglia have often been found to be diseased not only in the neighbourhood of the great serous cavities, but also in the extremities. This may even be the case without the meat showing any evidence of the existence of a wasting disease; in fact, tuberculous glands have been found in meat apparently of prime quality. Such an invasion of the peripheral lymphatics is, of course, generally most extensive in advanced cases in which wasting has taken place; the appearance of the meat in such instances easily betrays its unsoundness.

If this invasion of the lymphatics is taken in consideration, the careful experiments by which several observers have tried to prove that the flesh of tuberculous animals is not infectious, by carefully separating the muscular from the surrounding tissues, are not of much practical value, notwithstanding their great scientific interest.

But it is not only through the presence of tuberculous glands in their midst that meat from tuberculous animals is rendered dangerous. Butchers, when they dress a carcase, do not, like the careful experimenter, sterilise their fingers and knives at each step of the dissection, they do not sterilise the walls, tables, hooks, etc., which they use after those have come in contact with tuberculous carcases or offals. On the contrary, the meat constantly runs the risk of being contaminated with discharges or products coming from the tuberculous organs, which, no doubt, are condemned and destroyed, but leave traces behind them.

What is, therefore, the practical use in experiments on the infectiousness of flesh from tuberculous animals, to use muscles or blood, removed or collected under conditions which cannot be observed in the abattoir?

It is fortunate for us that it is only when the tubercle bacilli are pretty abundant that that they are capable of causing disease in a healthy adult person. But in weak or young individuals the danger is much greater, and there is always the possibility that some bone or hard particle infected with tuberculous matter may wound the mucous membrane of the mouth, fauces, or some other part of the alimentary canal, and bring about tuberculosis just as in my experiments with the tuberculous needle.

It is not easy to prove the actuality of the danger by quoting cases in which tuberculosis had been undoubtedly the result of the ingestion of tuberculous meat.

The statistics to prove the frequency of abdominal tuberculosis in children appeal only to those who have made a large number of experiments and observations.

Even in these cases in which meat might be suspected to be the cause of tuberculosis it would be difficult to trace clearly the piece of meat which should be incriminated, and afterwards to establish clearly its history; and if this could be done, it is evident that the carcase from which the joint had been obtained would have long been beyond the reach of scientific investigation when tuberculosis had made sufficient progress in the victim to be evident.

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Stang gives details of another case. A boy, aged five years, born of healthy parents, died from advanced tuberculosis of the mesenteric ganglia and miliary tuberculosis of the lungs. It was ascertained that he had been in the habit of drinking warm uncooked milk from a cow suffering from tuberculosis, as was proved by examination of the viscera after the animal had been slaughtered.

A still more telling instance is recorded by Dr. Gosse, of Geneva. His daughter was, at the age of 16, a strong and healthy girl, and there was no trace of tuberculosis in the family. About 10 months before her death she began to manifest signs of some mysterious illness, which caused gradual wasting, and ultimately the patient died at the age of 17. At the autopsy it was found that the poor girl had suffered from intestinal and mesenteric tuberculosis. It was then remembered that she used, when spending the Sundays on a small estate where cows were kept, to drink warm milk almost straight from the cows. These cows were, in consequence of this, examined; four out of the five were found tuberculous, and of these two had tuberculous udders.

Such instances of infection, though few, are sufficiently clear to establish the risks attending the use of tuberculous food.

It may be argued that meat is usually cooked before being eaten, and that the virulence of the tubercle bacillus is in this way destroyed; but it must be remembered that a large proportion of the meat used for food is either roasted or grilled, and that the internal parts of chops, beefsteaks, or roasted joints are seldom sufficiently cooked to kill bacilli.

Chauveau and Arloing have shown that unless a tuberculous piece of meat has been kept all through at a temperature of 70° C. for about half an hour, it is still capable to infect animals. Now, whenever the inside of a joint is still red, it can be safely said that the temperature of the red parts has not even reached 70°C.

Bang has shown that after milk had been kept at a temperature of 85°C. for five minutes, any tubercle bacilli which it might contain is killed. To obtain such a temperature in the centre of an ordinary joint, much more prolonged cooking than is generally desired should be allowed.

Such are the main facts and arguments which may be relied upon to prove the danger connected with the consumption of tuberculous meat. Many more observations and experiments might have been quoted, but it has been thought that they could hardly be more convincing than those alluded to in the text. Only few bibligraphical references are given, because most of the information wanted will be easily found in works such as those of Arloing and Nocard, and also in papers by Woodhead and McFadyean.

It is hoped that the facts brought together in this short *exposé* will be enough to convince the reader of the seriousness of the matter at issue, and of the *real risk which is incurred if tuberculous meat is allowed to pass as fit for human food by meat inspectors.*

[The report of the Royal Commission on Tuberculosis not being available yet to the public, I regret not to be able to take advantage of it in support of my contention, but it may be said in a general way to establish the views here advanced.]—*The Medical Chronicle.* (May).

## A NEW THEORY OF MIGRATION.

The great streams of migratory birds that, by various routes find their way back to these islands begin to abate something of their force. There are more than fifty of these feathered wanderers. It is always in March that we listen for the first returning chiff-chaff. In April the swallow comes, and the cuckoo, and all the host of warblers. In May we get the swift and the flycatcher, the nightjar and the shrike. The great invasion is still going on. Our knowledge of the arrival and departure of the migrants has been very largely increased through the observations of lighthouse keepers at many points round our coasts. Under the auspices of a Committee of the British Association, records were kept at more than a hundred light stations during several years, and a great quantity of information was thus accumulated. But although naturalists are now well acquainted with many of the phenomena of migration, they are still at a loss to explain some of its most familiar problems. Mr. Dixon, in his volume on the "Migration of British Birds," suggests that these "summer visitors" are not northern birds which are induced by cold and famine to take refuge in the south, but that they are rather southern species which have thrown out colonies towards the north. Migration dates, he thinks, from near the close of the Glacial period. It is his opinion that that period destroyed all life in the north of Europe; that there were regions, which he calls "refuge areas," which were not so devastated; that the birds which there escaped destruction ultimately spread northward, by various routes, dependent on the configuration of the land.

In the author's view, "it is impossible to understand the present migration and geographical distribution of British birds, unless we take into consideration the past emigrations of these species, or their common ancestral forms. . . It is equally impossible to understand them without taking into consideration the various geographical mutations and climatic changes which have taken place in this area during late Tertiary and Post-Tertiary time." It is often said that, at the setting in of the great Ice age, birds and beasts alike retreated southward before the advancing cold, and consequent scarcity of food. Mr. Dixon, however, holds that "species never retreat from adverse conditions." They may suffer. They may be exterminated. But they are like the Old Guard—they die, but they never give in. He believes that no such "Southern Exodus" before the growing cold, as is commonly spoken of, ever took place. "The tendency of birds, if not of all living organisms, is to spread in the direction of the Poles. During present time, a bird in the Northern Hemisphere never increases its range in a southern direction." It is Mr. Dixon's opinion that during the Glacial Period all forms of life in the glaciated area were entirely destroyed. He traces out, however, three tracts to the southward, which he calls range bases or refuge areas, which where not affected by the cold, or not to so great a degree as the higher latitudes. Here the beasts, the birds, and the reptiles survived, and from these three areas the northern countries were restocked when the severity of the Great Ice Age had passed away.

The first of these "refuge areas" included the extreme north of Spain, France, Belgium, part of Germany, and England south of the Thames and Severn. Mr. Dixon gives a list of twenty-one species of birds which he thinks inhabited this region "during the third, and most probably the second, cold periods of the Glacial Epoch. . . . Every one of these birds could have lived in winter in such an area." Mr. Dixon goes on to say that not a single species in the list "is represented in the south by an allied race." Much more important, however, in connection with British ornithology, is the author's second "refuge area," which covered Spain and Portugal, the Balearic Islands, Corsica, Sardinia, Italy, Sicily, Malta, part of Tripoli, Tunis, Algeria, and Morocco, together with the Canary Islands. Of 115 resident British birds, 21 are now represented in this area by closely allied species. Sixty-four British species are resident also in this "refuge area," throughout which "their distribution is continuous." Twenty-nine of our resident birds resort more or less to this region in the winter, and of the birds that visit us in winter twenty-six "prolong their flight southwards to Iberia, North Africa, and the Canaries, which indicates an ancient range base of those species and where such species were preserved from extinction in Western Europe during the glaciation of northern lands, and from which they started as emigrants on their northward extension with the change of climate." Finally, this Refuge Area continues down to the present time to be the winter home of almost every bird that migrates to our country in spring to breed." After alluding to a small group of migrants, which, among other birds now British, he considers to have inhabited "Refuge Area III."—which included south-eastern Europe, south-western Asia, and the whole of Africa—Mr. Dixon gives his reasons why many other residents in Area III., although following for some distance the same route of migration as the red-backed shrike, the marsh warbler, and the red-necked phalarope, never breed in this country at all. These other residents in Area III. were, so Mr. Dixon suggests, "prevented by climatic and glacial conditions from reaching 'south west and west-central Europe' until the vast northern emigration of birds from Area II. had taken place, which we have every reason to believe occurred earlier and under more favourable auspices—due to Gulf Stream influence—than was the case with birds whose emigrations progressed from the south-east." So that when the birds of Area III. set out on their northern journey of colonisation, they found the south-west and centre of Europe already occupied, "or it may be that the sea had already separated Britain from Continental Europe." In this regard Mr. Dixon lays great stress on the importance of the route of migration. The colonists from Area III. travelled towards the north, he thinks, from the south east, keeping to the east of Italy. To spread to our islands from this line would "entail a southern—and, I maintain, an impossible—extension of range." In the chapter on "Conditions of Flight," some interesting suggestions are made as to the reason "why some individuals of the wheatear, for instance, elect to take a wide ocean passage to the south-west of Ireland, whilst other individuals cross by the Strait of Dover." And also "why the redstarts breeding in or passing over Devonshire cross the English Channel where it is four times as wide as where individuals breeding in or passing over more eastern counties cross. There can be but one answer to such a question, and that is that these individual birds follow a route along which their ancestors increased the range extension northwards (then probably across dry land, long since submerged), that they have no knowledge of any other route, and are not endowed with any instinctive faculty that will help them to migrate by any easier way."—*The Daily News.*

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## VETERINARY INSPECTION IN SHROPSHIRE.

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## VETERINARY INSPECTION IN SHROPSHIRE.

The Board of Agriculture have recently drawn the attention of your committee to the desirability of maintaining veterinary supervision over all animals exposed at markets, fairs, or public sales, in order that the presence of any contagious disease may be readily detected and quickly dealt with, and suggested that the veterinary inspector should be instructed to attend all markets,

fairs, or public sales held within the borough, and to examine, as far as practicable, at the entrance of those places all animals brought in for sale. The importance of this matter is evident owing to the measures found to be necessary for the extirpation of pleuro-pneumonia, foot and-mouth disease, swine fever, and sheep scab. Regulations of a very onerous character have frequently been indispensable owing to the fact that the disease spreads over wide areas before its presence is recognised. The necessity for such regulations would often be avoided if efficient arrangements for maintaining veterinary supervision were made. Your committee have been in communication with the veterinary inspector (Mr. W. E. Litt), with the view of his undertaking the duties of such supervision by attending at every sale which may be held in the Smithfield, and formally reporting to the committee from time to time, and this he has undertaken to do for the sum of £50 per annum. For some years past Mr. Litt has held the position of veterinary inspector, and when it became necessary for him to specially visit the Smithfield market he was allowed a fee of 10s. 6d. a visit. It is therefore recommended that the proposed arrangement with him be adopted, and that he be appointed, thereby securing a thorough veterinary inspection of the whole of the stock exposed for sale on every occassion.

Mr. W. L. Brown proposed the adoption of the report. He said they were bound to appoint a veterinary inspector, so as to comply with the instruction from the Board of Agriculture; but beyond that it was a wise precaution for them to take to satisfy vendors and purchasers that there was no disease in the fair, and that they could send stock there without any fear. (Applause) Their market had become one of considerable importance. Whether that was due to the exceptional position of the fair and the excellent railway facilities, or to the energy displayed by their public salesmen he did not know, but the fact remained that the attendance was much larger, and a greater amount of business was done than previously. (Hear, hear.)

Mr. J. Davies seconded the adoption of the report, which was agreed to.—*Shrewsbury Chronicle.*

## THE TUBERCULOSIS COMMISSION.

At last the report of the Royal Commission on tuberculosis has been wrung from the unwilling hands of Mr. Shaw-Lefevre. There seems to be no room for doubting that the present Government fully intended to suppress this report, seeing that last autumn, after it was completed they ignored the original Commission and appointed a new one to go over all the same ground again. But the patience of the country had become exhausted with this attempt to burke a matter of the most serious importance as regards the public health, and the exposure of the Government's tactics in connection with the Edinburgh Butcher's Association helped to convince them that the report must be given up without delay. The report, now that it is published, bears internal evidence of having been prepared long ago, for it is far from being up to date. For instance, Professor McFadyean was deputed by the Commissioners to conduct an inquiry as to the means of detecting tuberculosis in animals during life, and in the report Professor McFadyean describes Koch's tuberculin tests as uncertain. Clearly, therefore, this deliverance was stale and out of date, for within the last two years the tuberculin test has been proved to be thoroughly trustworthy, and in his inaugural address as President of the Royal Veterinary College last October Professor McFadyean emphatically declared that the test was an eminently reliable one. On that occasion also the Professor declared that when this test had been proved to be so very reliable, no pedigreed cattle should be bought or sold unless they had been first proved by this test to be free from the disease, so that they could then be sold with a warranty of soundness, as was commonly done with the more valuable class of horses. This wise advice has been promptly followed by Continental breeders, and on Saturday last a very important sale of pedigreed shorthorns was conducted at Paris at which all the animals were warranted as being free of tuberculosis, every one of them having been previously subjected to the tuberculin test. In many other particulars the information contained in the report is antiquated. In regard to the danger of eating meat tainted with tuberculosis, the Commissioners find that the ordinary processes of cooking are sufficient to destroy any bacilli that may lurk in the tissues. The danger of using tuberculous milk in the raw state is fully admitted, but this is a point on which the public did not require a Royal Commission to warn them. The Commissioners state that the bringing of milk up to the boiling point for a single moment would be sufficient to destroy any bacilli it may contain, and this also is a point respecting which the intelligent public have long been fully informed. The fable of the mountain producing the mouse has been fully illustrated by this Royal Commission, which, after costing the country £7500 and wasting four years and eight months on the inquiry, has only been able to produce a report which contains a lot of facts already well known, together with a lot of theories of more than questionable value.—*The Edinburgh Evening Dispatch.*

## ALLEGED CRUELTY TO A HORSE.

At Ashby Petty Sessions, Thomas Wilson, a butcher, of Albert Village, was summoned at the instance of William Hawthorn, for having cruelly illtreated a horse by working it whilst in an unfit state at Ashby, on the 15th April.—Mr. W. A. Musson of Ashby defended.

William Smedley stated that on the day in question he saw a brake passing the Post Office, and he noticed the horse was lame. He called to the driver about it, but he did not pull up until he got to the King's Head. It was only about seventy yards from the Post Office to the King's Head.

P. C. Grewcock stated that his attention was called to the animal in question, and he noticed that it was lame. Wilson said it had only got a little stiff from standing, and it would oe all right when it got warm. He wanted to go on again, but was advised not to do so. Wilson took the animal out, and then went for a veterinary surgeon, who said the lameness was caused through a prick in the foot.

William Haythorn, inspector, R.S.P.C.A., gave evidence as to the examination of the horse, stating it had a ringbone in the foot. Wilson told him that Mr. Sturgess, the veterinary surgeon, had advised him to blister the animal, and that he was going for some more oils that day.

Mr. Thomas Harry Hobson, of Liecester, F.R.C.V.S., stated that on the 4th May he was called to the animal

in question. It was walking very lame. He examined it, and came to the conclusion that the lameness was caused by a bony deposit round the coronet, and the contracted condition of a hoof. He considered the lameness had been present for some time.—Cross-examined: He found no evidence of any injury done in shoeing.

For the defence, Thomas Allen, saddler, of Overseal, was called, and stated that he saw the animal in question on Good Friday and Easter Sunday, and on both occasions it was perfectly sound. On Easter Monday morning he saw the horse again, and it was sound then. —Other evidence was given to show that the animal suddenly fell lame whilst being driven on Easter Monday.

Mr Sydney Sturgess, M.R.C.V.S., of Ashby, stated that he did not know the defendant until Easter Monday, when he asked him to examine the horse. He went to the stable where the animal was, and found it vere lame. The lameness was caused by bad shoeing. Thery was no ringbone whatever. Had there been ringbone the animal would have had a very different kind of lameness.—The case was dismissed.

## THE VETERINARY DEPARTMENT OF THE BOARD OF AGRICULTURE

It is unfortunate for the live stock interests of the country at large that the Board of Agriculture should have tampered with the arrangement of its departments to the extent recently announced by Mr. Gardner. The veterinary profession, in common with stockowners, may well ask the Minister of Agriculture what offence the Veterinary Department committed that it should have been completely abolished in name and largely restricted in scope. Few who can lay claim to practical experience and impartiality will acquiesce in the opinion that in substituting the title "Animals Department" for "Veterinary Department" the Government were consulting first and foremost the best interests of the country. There is no denying the fact that Mr. Gardner for some reason intelligible only to himself has stifled perhaps the most widely beneficial of all the Departments over which he presently presides. The evil influences of this latest piece of official mismanagement are far-reaching. They are not confined to British interests in this country alone. We will, there is reason to expect, suffer to a considerable extent abroad. The breeders of the best classes of English and Scotch farm stock usually manage to reap a fair annual harvest from foreign buyers. But this much-needed and much-appreciated outlet is open to them only when the exporting purchasers are satisfied that they run no risk of bringing disease along with the animals. There is the strong probability that the unwarrantable alteration in the constitution of the Board of Agriculture will shake the confidence of our welcome foreign customers. It is sincerely to be hoped it may not. But at the present moment Germany refuses to admit sheep from this country on the ground that foot and mouth disease is rampant amongst our herds and flocks. Of course this, as everybody here knows, is a gross mistake, as that dreaded malady was completely eradicated a least a couple of years ago. The despised Veterinary Department accomplished that arduous task for us with praiseworthy expedition. But can we blame the authorities in foreign countries for discrediting the declarations of a layman on a subject so intensely professional and important? In the eyes of the foreigner we are without a Veterinary Department, and so long as that is the case so long will our transactions with foreign buyers continue to diminish. —*The Morning Post.*

## CONTAGIOUS DISEASES RETURNS.

The returns for Great Britain under the Diseases of Animals Acts are now complete for the first 20 weeks of the year—that is, down to and including the week ended May 18. The deaths from swine fever have reached a total of 3,285, against 3,092 in the first 20 weeks of 1894, and an average of 2,447 for the like period of the three years 1892 3-4. The number of swine slaughtered as diseased or as having been exposed to infection in the 20 weeks was 16,559, against 25,326 in the equivalent period of last year. As the Swine Fever Order came into operation on November 1, 1893, these figures are strictly comparable, and it will be noted that the slaughterings have diminished by over 34 per cent., whilst the deaths have increased 6 per cent. on last year's figures. Of anthrax there have been in the 20 weeks 191 fresh outbreaks and 482 animals attacked. Of glanders 377 fresh outbreaks have involved 623 animals, last year's corresponding numbers having been 411 and 585 respectively. Rabies appears to be greatly on the increase, for as many as 339 diseased animals have died or been killed in the first 20 weeks of the year, as compared with 69, 34, and nine respectively in the like periods of 1894, 1893, and 1892.—*The Times.*

### The Slaughter of Cattle.

A deputation, headed by the Duke of Westminster, and including amongst others the Earl of Winchilsea, the Earl of Stamford, General Barrington Foote, the Archdeacon of London, Dr. Norman Kerr, Dr. Schofield, and the Rev. F. Lawrence, had an interview yesterday with the President of the Local Government Board to support memorials from the Church Society for the Promotion of Kindness to Animals and the Church Sanitary Association, asking for better regulations for the transit and slaughter of animals and the general adoption of *abattoirs*. The Duke of Westminster, in introducing the deputation, said the evils of the present system of slaughtering cattle—or rather of the want of system—were notorious. They involved multiplied nuisances, unnecessary cruelty to animals, and the impossibility of anything like an adequate inspection of meat. The Royal Commission had reported that tuberculosis meat could produce disease in man. The minute inspection of animals and of meat ought to be imperative, but this was simply impossible where, as in London, there were 500 private slaughterhouses situated often in narrow alleys and ill-ventilated courts and premises. The inspectors under any reformed system should be thoroughly trained and licensed veterinary surgeons; and the object of the deputation was to urge the Local Government Board to take the initiative, believing as they did that there was no sort of reason why that which had been done with great advantage abroad should not be done with equal public advantage at home. The President of the Local Government Board, in reply, stated that the Government intended to take the matter into their serious consideration in connection with the report of the Royal Commission on Tuberculosis.

## STERILITY IN MULES.

*The Field* of May 18 contained an article on this subject from the pen of Mr. W. B. Tegetmeier, from which we reprint the following :—

"Hybrids between such totally different animals as cats and rabbits, deer and horses, and even between the human and other species, were not unfrequently recorded. It would be a waste of time to follow up the account of these cases, none of them having the slightest foundation in fact—the mere accidental resemblance of some deformed organ to that of another animal being in general the sole foundation for the ridiculous belief. It is now known to physiologists that, for two animals to produce a hybrid offspring, they must be very closely related, and have essentially the same structure.

Hybrids, even when produced between closely related animals, are in general sterile or destitute of the power of continuing their race. But this is not always the case; many hybrids being not only perfectly fertile *inter se*, but also with either of the parent species. These, however, are the exceptions to the general rule. One of the best known examples of a fertile hybrid is that bred between the common domestic goose (Anser cinereus) and the Chinese goose (A. cygnoides). There can be no possible question as to the distinction of these two species. It is so great that Cuvier placed the Chinese goose in the same genus as the swans, and called it not a goose, but a swan (Cygnus anseroides). It is very distinct in structure, form, and voice; but it hybridises with our common goose, and produces half-bred progeny that are perfectly fertile.

To pass from birds to the class of mammals. Many of these are capable of hybridising, and producing fertile offspring. We need only turn to Mr. Bartlett's exceedingly interesting and valuable experiments on breeding hybrid bovines in the Zoological Gardens. He mated such diverse animals as the zebu or horned cattle of India (Bos indicus), and the gayal (Bibos frontalis), and then crossed a female hybrid thus obtained with a North American bison (Bison americanus), subsequently crossing the hybrid progeny so produced with a bison, and obtained hybrids which were one-eighth zebu, one-eighth gayal, and three-fourths American bison. All these hybrids seemed perfectly fertile.

I have been devoting some considerable attention to the subject of equine hybrids whilst producing the work which, in conjunction with Mr. C. L. Sutherland, I have recently published on "Horses, Asses, Mules, and Mule Breeding." It is undoubted a fact that the generality of mules bred between the horse and the domestic ass are perfectly sterile. M. Ayrault, in his valuable work on mule breeding in France, says that in Poiton, where some thousands of mules are bred yearly, such a thing as a fertile mule is utterly unknown, although the young mules are placed in the most favourable conditions for being mated, as they are constantly on the pastures and marshes with the young horse colts.

In reply to these statements as to the absolute sterility of the female mule, it may be said that there is a well-known example now living in the Acclimatisation Gardens, in Paris, of a mule which has bred both with the horse and the ass. This is supposed to be the most authentic case on record; but nothing whatever of the origin of this animal is known. She was alleged, by the Algerian natives who sold her, to be a mule. The animal is known as "Catherine," there is little if anything of the mule character about her; and I have myself not the slightest doubt that she owes her very slight mulish look to the mare from which she was bred having previously had a mule foal. If any circumstances were wanted to prove distinctly that Catherine is not a mule, it would be the fact that her offspring by the horse are perfectly fertile—they being in fact pure bred horses; and that her offspring by the jack are perfectly sterile, they being—what she is not—mules.

A drawing of a supposed mule and her foal appeared in *The Australasian* of Dec. 2, 1893. This mule was owned by Mr. S. Dyer, of Laramie County, Wyoming, U.S. Mr. Dyer said that he had the mule and her colt in his ranch, and that he regarded her as the only one of the kind living in the world except the one in Paris, to which I have alluded. To use Mr. Dyer's own terms, he says "My mule's pedigree is straight," but the reproduction gives an exceedingly horse-like representation of the supposed mule, and the foal is one with excessively short ears and piebald in colour. Notwithstanding the production of this photograph, I am strongly of opinion that there must be some error in the case; as in that of the supposed fertile mule Catherine. Even granting the existence of one or two fertile equine mules, it is exceedingly remarkable that animals so closely related as the horse and the ass should produce hybrids that are so generally unfertile.

### Reported Cattle Disease in Canada.

Ottawa, Wednesday, May 29th.—With reference to the reported discovery at Montreal of dangerous contagious disease among cattle which were intended for shipment to England, the Minister of Agriculture to day telegraphed to Sir Charles Tupper, the Canadian High Commissioner in London stating that some animals suffering from lump-jaw were rejected for shipment by the Government inspector, who informed the Montreal health officer, and that in consequence the animals were not allowed to be slaughtered at the public abattoirs.—*The Telegraph*

## ARMY VETERINARY DEPARTMENT.

Extract from *London Gazette* of 28th May, 1895.

Vet.-Lieut. R. J. D. Tibaldi resigns his commission, Dated 29th May, 1895.

Veterinary-Capt. F. Smith has been appointed to the Remount Establishment, Woolwich, vice Veterinary-Maj. Glover, whose period of service expires on the 28th June.

Colonel J. D. Lambert, C.B., Director General, Army Veterinary Department, was one of the guests at the dinner given by the Secretary of State for War, in honor of Her Majesty's Birthday anniversary.

At the Levée held at Buckingham Palace on Monday, May 27th, by H.R.H. the Prince of Wales, Veterinary-Lieut.-Colonel Henry Thompson, A.V.D., was presented, on promotion, by General H.R.H. the Duke of Connaught and Strathearne, K.G.

Presentations to His Royal Highness at this Court are, by the Queen's pleasure, considered equivalent to presentations to Her Majesty.

COMMUNICATIONS, BOOKS AND PAPERS RECEIVED—Prof. Penberthy, Messrs. H. D. Chorlton, J. G. Parr, W. Scott, C. Cunniugham, R. Rutherford. *Shrewsbury Chronicle.*

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